

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	191302	sodium adj chloride	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/04 09:02
S1	84	rotigotine	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/08/31 14:33
S2	3230	iontophoretic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/09 14:53
S3	6	S1 and S2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/09 14:53
S4	84	rotigotine	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/13 14:01
S5	45	n-0923	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/13 14:09
S6	1443	triethylammonium adj chloride	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/13 15:04
S7	84	rotigotine	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/13 15:39
S8	1	S7 with S6	US-PGPUB; USPAT; EPO; JPO; DERWENT	WITH	ON	2007/03/13 14:10
S9	1	S7 same S6	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2007/03/13 14:11
S10	1	S7 and S6	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2007/03/13 14:11

EAST Search History

S11	131	tributylammonium adj chloride	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/13 14:11
S12	1	S7 and S11	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/13 14:13
S13	13490	chloride adj salt	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/13 14:14
S14	3	S7 and S13	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/16 13:21
S15	3234	iontophoretic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/13 15:04
S16	9	S6 and S15	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/13 15:04
S17	84	rotigotine	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/13 15:41
S18	70	"6299900"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/13 15:42
S19	1443	triethylammonium adj chloride	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/15 07:36
S20	84	rotigotine	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/15 07:35
S21	1	S20 and S19	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/15 07:36
S22	131	tributylammonium adj chloride	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/15 07:37

EAST Search History

S23	1	S22 and S20	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/15 07:36
S24	6913	424/401.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/16 13:21
S25	1443	triethylammonium adj chloride	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/16 13:21
S26	2	s S25 and S24	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/16 13:21
S27	2	S25 and S24	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/16 13:23
S28	131	tributylammonium adj chloride	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/16 13:23
S29	0	S24 and S28	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/16 13:23
S30	60525	transdermal	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/16 13:24
S31	114	S25 and S30	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/16 13:24
S32	0	S25 same S30	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2007/03/16 13:24
S33	17249	transdermal adj patch	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2007/03/16 13:24
S34	37	S25 and S33	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2007/03/16 13:29

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:10:22 ON 04 SEP 2007

=> file caplus medline biosis embase
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 12:10:36 ON 04 SEP 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE 'EMBASE' ENTERED AT 12:10:36 ON 04 SEP 2007
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=> s rotigotine or 99755-59-6
L1 509 ROTIGOTINE OR 99755-59-6

=> s parkinson?(n)disease
L2 96812 PARKINSON?(N) DISEASE

=> s l1 and l2
L3 232 L1 AND L2

=> s transdermal
L4 43386 TRANSDERMAL

=> s l3 and l4
L5 155 L3 AND L4

=> s iontophore?
L6 30092 IONTOPHORE?

=> s l5 and l6\
L7 0 L5 AND L6\
L8 3 L5 AND L6

=> s l5 and l6
L8 3 L5 AND L6

=> dup rem
ENTER L# LIST OR (END):18
PROCESSING COMPLETED FOR L8
L9 2 DUP REM L8 (1 DUPLICATE REMOVED)
ANSWER '1' FROM FILE CAPLUS
ANSWER '2' FROM FILE EMBASE

=> d ti au abs so py 1-2 19

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
TI Transdermal iontophoresis of the dopamine agonist
5-OH-DPAT in human skin in vitro
AU Nugroho, Akhmad Kharis; Li, Li; Dijkstra, Durk; Wikstroem, Hakan; Danhof,
Meindert; Bouwstra, Joke A.
AB The feasibility of transdermal iontophoretic delivery
of a potent dopamine agonist 5-OH-DPAT was studied in vitro in side by
side diffusion cells across human stratum corneum (HSC) and dermatomed
human skin (DHS) according to the following protocol: 6 h of passive

diffusion, 9 h of iontophoresis and 5 h of passive diffusion.

The influences of the following parameters on the flux were studied: donor solution pH, NaCl concentration, drug donor concentration, c.d. and skin type.

A c.d. of

0.5 mA cm⁻² was used, except for one series of expts. to study the c.d. effect. Probably due to the influence of the skin perm-selectivity and the competition with H⁺, increase in pH from 3 to 5 resulted in a significant increase in flux. Further increase in pH to 6 did not further increase the flux. The iontophoretic transport was found to increase linearly with concentration and c.d., providing a convenient way to manage dose titration for Parkinson's disease therapy. Increase in

concentration of

NaCl dramatically reduced the flux of 5-OH-DPAT as a result of ion competition to the transport. When DHS was used, the iontophoretic transport was less. Also, with DHS the response in flux profile, by switching the current on and off, was shallower than that with HSC. With the optimum condition, a delivery of 104 µg of 5-OH-DPAT per cm² patch per h is feasible, indicating that the therapeutic level could be achieved with a smaller patch size than required in case of rotigotine. Thus, based on this in vitro study, transdermal iontophoretic delivery of 5-OH-DPAT is very promising.

SO Journal of Controlled Release (2005), 103(2), 393-403

CODEN: JCREEC; ISSN: 0168-3659

PY 2005

L9 ANSWER 2 OF 2 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

TI Transdermal iontophoresis.

AU Priya B.; Rashmi T.; Bozena M.

AB Iontophoresis is a technique used to enhance the transdermal delivery of compounds through the skin via the application of a small electric current. By the process of electromigration and electro-osmosis, iontophoresis increases the permeation of charged and neutral compounds, and offers the option for programmed drug delivery. Interest in this field of research has led to the successful delivery of both low (lidocaine) and high molecular drugs, such as peptides (e.g., luteinising hormone releasing hormone, nafarelin and insulin). Combinations of iontophoresis with chemical enhancers, electroporation and sonophoresis have been tested in order to further increase transdermal drug permeation and decrease possible side effects. In addition, rapid progress in the fields of microelectronics, nanotechnology and miniaturisation of devices is leading the way to more sophisticated iontophoretic devices, allowing improved designs with better control of drug delivery. Recent successful designing of the fentanyl E-TRANS[®] iontophoretic system have provided encouraging results. This review will discuss basic concepts, principles and applications of this delivery technique. .COPYRGT. 2006 Ashley Publications.

SO Expert Opinion on Drug Delivery, (2006) Vol. 3, No. 1, pp. 127-138. .

Refs: 79

ISSN: 1742-5247

PY 2006

=>

=> s chloride
L10 1805010 CHLORIDE

=> d his

(FILE 'HOME' ENTERED AT 12:10:22 ON 04 SEP 2007)

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 12:10:36 ON 04 SEP 2007

L1 509 S ROTIGOTINE OR 99755-59-6
L2 96812 S PARKINSON?(N)DISEASE
L3 232 S L1 AND L2
L4 43386 S TRANSDERMAL
L5 155 S L3 AND L4
L6 30092 S IONTOPHORE?
L7 0 S L5 AND L6\
L8 3 S L5 AND L6
L9 2 DUP REM L8 (1 DUPLICATE REMOVED)
L10 1805010 S CHLORIDE

=> s l1 and l10
L11 19 L1 AND L10

=> dup rem
ENTER L# LIST OR (END):l11
PROCESSING COMPLETED FOR L11
L12 15 DUP REM L11 (4 DUPLICATES REMOVED)
ANSWERS '1-11' FROM FILE CAPLUS
ANSWERS '12-13' FROM FILE MEDLINE
ANSWERS '14-15' FROM FILE EMBASE

=> d ti au abs so py 1-5 l12

L12 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
TI Transdermal iontophoresis of the dopamine agonist 5-OH-DPAT in human skin
in vitro
AU Nugroho, Akhmad Kharis; Li, Li; Dijkstra, Durk; Wikstroem, Hakan; Danhof,
Meindert; Bouwstra, Joke A.
AB The feasibility of transdermal iontophoretic delivery of a potent dopamine
agonist 5-OH-DPAT was studied in vitro in side by side diffusion cells
across human stratum corneum (HSC) and dermatomed human skin (DHS)
according to the following protocol: 6 h of passive diffusion, 9 h of
iontophoresis and 5 h of passive diffusion. The influences of the
following parameters on the flux were studied: donor solution pH, NaCl
concentration, drug donor concentration, c.d. and skin type. A c.d. of 0.5 mA
cm-2 was
used, except for one series of expts. to study the c.d. effect. Probably
due to the influence of the skin perm-selectivity and the competition with
H+, increase in pH from 3 to 5 resulted in a significant increase in flux.
Further increase in pH to 6 did not further increase the flux. The
iontophoretic transport was found to increase linearly with concentration and
c.d., providing a convenient way to manage dose titration for Parkinson's
disease therapy. Increase in concentration of NaCl dramatically reduced the
flux
of 5-OH-DPAT as a result of ion competition to the transport. When DHS
was used, the iontophoretic transport was less. Also, with DHS the
response in flux profile, by switching the current on and off, was
shallower than that with HSC. With the optimum condition, a delivery of
104 µg of 5-OH-DPAT per cm2 patch per h is feasible, indicating that
the therapeutic level could be achieved with a smaller patch size than
required in case of rotigotine. Thus, based on this in vitro
study, transdermal iontophoretic delivery of 5-OH-DPAT is very promising.
SO Journal of Controlled Release (2005), 103(2), 393-403
CODEN: JCREEC; ISSN: 0168-3659
PY 2005

L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2

TI Transdermal Iontophoresis of Rotigotine Across Human Stratum
Corneum in Vitro: Influence of pH and NaCl Concentration

AU Nugroho, Akhmad Kharis; Li, Gai Ling; Danhof, Meindert; Bouwstra, Joke A.

AB The aim of this study was to characterize the influence of pH and NaCl
concentration on the transdermal iontophoretic transport of the dopamine
receptor

agonist rotigotine across human stratum corneum (HSC).

Rotigotine transport was studied in vitro in side by side
diffusion cells according to the following protocol: 6 h of passive
diffusion, 9 h of iontophoresis, and 5 h of passive diffusion. A c.d. of
0.5 mA cm⁻² was used. The influence of donor phase pH (4, 5, and 6) and
different concns. of NaCl (0.07 and 0.14 M) on rotigotine
iontophoretic flux were examined. The acceptor phase was phosphate-buffered
saline (PBS) at pH 7.4 except in one series of expts. aimed to study the
effects of rotigotine solubility on its iontophoretic transport. In
this study, PBS at pH 6.2 was used. In sep. studies, ¹⁴C-mannitol was
used as a marker to determine the role of electro-osmosis during iontophoresis.
The estimated iontophoretic steady-state flux (Flux_{ss}) of rotigotine
was influenced by the pH of the donor solution. At a drug donor concentration

of 0.5

mg mL⁻¹, the iontophoretic flux was 30.0 ± 4.2 nmol cm⁻² h⁻¹ at pH 6
vs. 22.7 ± 5.5 nmol cm⁻² h⁻¹ at pH 5. However, when the donor concentration
was increased to 1.4 mg mL⁻¹, no significant difference in iontophoretic
rotigotine transport was observed between pH 5 and 6. Increase of
NaCl concentration from 0.07 M to 0.14 M resulted in a decrease of the
rotigotine Flux_{ss} from 22.7 ± 5.5 nmol cm⁻² h⁻¹ to 14.1 ±
4.9 nmol cm⁻² h⁻¹. The contribution of electro-osmosis was estimated less
than 17%. Probably due to the lipophilic character of the drug, impeding
the partitioning of rotigotine from HSC to the acceptor
compartment, steady-state transport was not achieved during 9 h of
iontophoresis. Both pH and NaCl concentration of the donor phase are crucial

on

the iontophoretic transport of rotigotine. Electro-repulsion is
the main mechanism of the iontophoretic transport of rotigotine.

SO Pharmaceutical Research (2004), 21(5), 844-850

CODEN: PHREEB; ISSN: 0724-8741

PY 2004

L12 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

TI Use of film-forming hair-care polymers from the group of polyurethanes for
pharmaceutical preparations and plasters containing such polymers

IN Zurdo Schroeder, Ines; Franke, Patrick; Bracht, Stefan; Lehr,
Claus-Michael; Schaefer, Ulrich

AB The present invention relates to the use of film-forming polyurethanes
which are used in hair-care products or the use of mixts. of said
polyurethanes and other polymers in pharmaceutical preps. for dermal or
transdermal application of active agents, as well as to plasters and
pharmaceutical preps. containing said hair-care polyurethanes. Various film
forming polymers, especially DynamX are selected for formulations with drugs,
solvents, plasticizers, moisturizers, emulsifiers and permeation
enhancers. Thus a typical composition contains (weight/weight%): DynamX 10;

tri-Et

citrate 1; oleic acid 5; ethanol 62.2; water 16.8; drug 5.

SO PCT Int. Appl., 51pp.

CODEN: PIXXD2

PY 2007

2007

L12 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

TI Use of film-forming hair care polymers for pharmaceutical preparations and
patches comprising such polymers

IN Zurdo Schroeder, Ines; Franke, Patrick; Bracht, Stefan

AB The invention concerns the use of film-forming hair care polymers for topical and transdermal drug delivery systems, e.g. patches. Various film forming polymers, especially DynamX are selected for formulations with drugs, solvents, plasticizers, moisturizers, emulsifiers and permeation enhancers. Thus a typical composition contains (weight/weight%): DynamX 10;

tri-Et

citrate 1; ethanol 89; drug 5.

SO Eur. Pat. Appl., 25pp.

CODEN: EPXXDW

PY 2007

2007

L12 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

TI Non-fibrous transdermal therapeutic system and method for its production

IN Meconi, Reinhold; Schumann, Klaus

AB The invention relates to a transdermal therapeutic system which is free of fibrous constituents, and to a method for production of such a transdermal therapeutic system, in which method a preparation containing active substance

is

applied by a printing method onto the adhesive layer of the transdermal therapeutic system.

SO PCT Int. Appl., 27pp.

CODEN: PIXXD2

PY 2006

2006

=> s triethylammonium(a)chloride

L13 483 TRIETHYLAMMONIUM(A) CHLORIDE

=> d his

(FILE 'HOME' ENTERED AT 12:10:22 ON 04 SEP 2007)

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 12:10:36 ON 04 SEP 2007

L1 509 S ROTIGOTINE OR 99755-59-6

L2 96812 S PARKINSON?(N)DISEASE

L3 232 S L1 AND L2

L4 43386 S TRANSDERMAL

L5 155 S L3 AND L4

L6 30092 S IONTOPHORE?

L7 0 S L5 AND L6\

L8 3 S L5 AND L6

L9 2 DUP REM L8 (1 DUPLICATE REMOVED)

L10 1805010 S CHLORIDE

L11 19 S L1 AND L10

L12 15 DUP REM L11 (4 DUPLICATES REMOVED)

L13 483 S TRIETHYLAMMONIUM(A) CHLORIDE

=> s l1 and l13

L14 1 L1 AND L13

=> d ti au abs so py

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

TI Iontophoretic delivery of rotigotine for the treatment of Parkinson's disease

IN Wolff, Hans-Michael; Bouwstra, Johanna Aaltje; Li, Gai Ling; Nugroho, Akhmad Kharis

AB By using a composition comprising rotigotine 0.5 to 3 mg/mL and at least one chloride salt in a concentration of 1 to 140 mmol/L, the composition having

a pH of 4 to 6.5 in a iontophoretic device for the treatment of Parkinson's disease, it became possible to obtain a rotigotine

flux across the human stratum corneum which was higher than the one previously obtained with conventional passive diffusion systems.

SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

PY 2004

2005

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=> s tributylammonium chloride

L15 68 TRIBUTYLAMMONIUM CHLORIDE

=> s tributylammonium(a)chloride

L16 68 TRIBUTYLAMMONIUM(A) CHLORIDE

=> s l1 and l16

L17 0 L1 AND L16

=>